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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/767,795 | 01/29/2004 | David K. Kovalic | 38-21(53534)B | 8183 |

7590 03/14/2006

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EXAMINER

MARTINELL, JAMES

ART UNIT PAPER NUMBER

1634

DATE MAILED: 03/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/767,795

Applicant(s)

KOVALIC ET AL.

Examiner

James Martinell

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) 1 and 3 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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Applicant's election with traverse of Group II, claim 2 and selection of SEQ ID NO: 69855 in the reply filed on January 6, 2006 is acknowledged. The traversal is on the ground(s) that (1) there is no serious search burden for the examination of the entire application, (2) that an amino acid sequence ought to be searched and examined together with a nucleotide sequence that encodes it, and (3) that 10 unrelated sequences ought to be searched and examined in a single application (MPEP 803.04). This is not found persuasive because:

- (1) The examination of over 58,000 nucleotide sequences and polypeptide sequences would occupy over 17 years of computer time with the attendant examining time needed to evaluate and interpret the results. This is a significant and serious search burden for the USPTO to undertake for a single patent application.
- (2) Applicants do not address the issue of independence and distinctness of Groups I and II (*i.e.* nucleotide sequences and polypeptide sequences). In addition, the searches for amino acid sequences and nucleotide sequences are not co-extensive.
- (3) Section 803.04 of the MPEP does not create a right to examination of 10 independent and distinct inventions in a single application.

The requirement is still deemed proper and is therefore made FINAL.

Claims 1 and 3 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on January 6, 2006.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claim is vague and indefinite.

(a) Claim 2 is vague and indefinite because it claims more than was elected.

Claim 2 is rejected under 35 U.S.C. 101 because the claimed invention lacks patentable utility. The instant application does not disclose a specific, substantial, and credible utility for SEQ ID NO: 69855 nor is a specific, substantial, and credible utility readily apparent to one of skill in the art from the disclosure and what was known in the art as of the effective filing date of the instant application.

Claim 2 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The instant application does not disclose a specific, substantial, and credible utility for SEQ ID NO: 69855 nor is a specific, substantial, and credible utility readily apparent to one of skill in the art from the disclosure and what was known in the art as of the effective filing date of the instant application. Thus, the instant application does not teach one of skill in the art how to use the claimed invention.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 2 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by Perera et al (Plant Mol. Biol. 29: 227 (1995)). Perera et al discloses a polypeptide that has the same sequence as SEQ ID NO: 69855. Compare SEQ ID NO: 69885 of the instant application to the polypeptide sequence in Perera et al at page 235, Figure 2, line ARAB 1,2 and see the following alignment.

RESULT 1

S60132

H+-exporting ATPase (EC 3.6.3.6) 16K chain P2, vacuolar - Arabidopsis thaliana

N;Alternate names: V-ATPase chain c; V-ATPase proteolipid chain

C;Species: Arabidopsis thaliana (mouse-ear cress)

C;Date: 15-Feb-1996 #sequence_revision 01-Mar-1996 #text_change 31-Dec-2004

C;Accession: S60132

R;Perera, I.Y.; Li, X.; Sze, H.

Plant Mol. Biol. 29, 227-244, 1995

A;Title: Several distinct genes encode nearly identical 16 kDa proteolipids of the vacuolar H(+)-ATPase from Arabidopsis thaliana.

A;Reference number: S60129; MUID:96046743; PMID:7579175

A;Accession: S60132

A;Molecule type: mRNA

A;Residues: 1-165

A;Cross-references: UNIPROT:P59228; UNIPARC:UPI0000138E63; EMBL:L44585; NID:g926936;

PIDN:AAA99937.1; PID:g926937; EMBL:L44582

A;Experimental source: clone AVA-P2

C;Genetics:

A;Gene: AVA-P2

C;Superfamily: vacuolar H(+)-transporting ATPase 16K chain

C;Keywords: ATP; channel-forming protein; hydrolase; transmembrane protein

Query Match 100.0%; Score 809; DB 2; Length 165;
Best Local Similarity 100.0%; Pred. No. 4.6e-59;
Matches 165; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy      1 MASTFSGDETAPFFGFLGAAAALVFSCMGAAAYGTAKSGVGVASMGVMRPELVMKSIVPVV 60
          |||
Db      1 MASTFSGDETAPFFGFLGAAAALVFSCMGAAAYGTAKSGVGVASMGVMRPELVMKSIVPVV 60

Qy     61 MAGVLGIYGLIIAVIISTGINPKAKSYLFDGYAHLSSGLACGLAGLSAGMAIGIVGDAG 120
          |||
Db     61 MAGVLGIYGLIIAVIISTGINPKAKSYLFDGYAHLSSGLACGLAGLSAGMAIGIVGDAG 120

Qy    121 VRANAQQPKLFVGMILILIFAEALALYGLIVGIILSSRAGQSRAE 165
          |||
Db    121 VRANAQQPKLFVGMILILIFAEALALYGLIVGIILSSRAGQSRAE 165
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Martinell whose telephone number is (571) 272-0719.

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The examiner works a flexible schedule and can be reached by phone and voice mail.

Alternatively, a request for a return telephone call may be e-mailed to james.martinell@uspto.gov. Since e-mail communications may not be secure, it is suggested that information in such requests be limited to name, phone number, and the best time to return the call.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ram Shukla, can be reached on (571) 272-0735.


OFFICIAL FAX NUMBER

The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300. Any Official Communication to the USPTO should be faxed to this number.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to (571) 272-0547.

Patent applicants with problems or questions regarding electronic images that can be viewed in the Patent Application Information Retrieval system (PAIR) can now contact the USPTO's Patent Electronic Business Center (Patent EBC) for assistance. Representatives are available to answer your questions daily from 6 am to midnight (EST). The toll free number is (866) 217-9197. When calling please have your application serial or patent number, the type of document you are having an image problem with, the number of pages and the specific nature of the problem. The Patent Electronic Business Center will notify applicants of the resolution of the problem within 5-7 business days. Applicants can also check PAIR to confirm that the problem has been corrected. The USPTO's Patent Electronic Business Center is a complete service center supporting all patent business on the Internet. The USPTO's PAIR system provides Internet-based access to patent application status and history information. It also enables applicants to view the scanned images of their own application file folder(s) as well as general patent information available to the public.

For all other customer support, please call the USPTO Call Center (UCC) at 800-786-9199.


James Martinell, Ph.D.
Primary Examiner
Art Unit 1634

3/3/06